Senate

General Assembly

File No. 516

February Session, 2018

Substitute Senate Bill No. 331

Senate, April 16, 2018

The Committee on Energy and Technology reported through SEN. WINFIELD of the 10th Dist. and SEN. FORMICA of the 20th Dist., Chairpersons of the Committee on the part of the Senate, that the substitute bill ought to pass.

AN ACT CONCERNING RENEWABLE ENERGY CONVERSION TECHNOLOGIES AND RUN-OF-THE-RIVER HYDROPOWER FACILITIES.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subdivision (20) of subsection (a) of section 16-1 of the 2018 supplement to the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2018*):

(20) "Class I renewable energy source" means (A) electricity derived from (i) solar power, (ii) wind power, (iii) a fuel cell, (iv) geothermal, (v) landfill methane gas, anaerobic digestion or other biogas derived from biological sources, (vi) thermal electric direct energy conversion from a certified Class I renewable energy source, (vii) ocean thermal power, (viii) wave or tidal power, (ix) low emission advanced renewable energy conversion technologies, <u>including, but not limited to, high technology oil-free Organic Rankine Cycle systems that produce electric power from thermal energy, provided such thermal</u>

energy is generated by another Class I renewable energy source, (x) (I) a run-of-the-river hydropower facility that began operation after July 1, 2003, and has a generating capacity of not more than thirty megawatts, or (II) any portion of the capacity from a run-of-the-river hydropower facility that began operation on or before July 1, 2003, and has a generating capacity of not more than thirty megawatts that will deliver electric capacity into the control area of the regional independent system operator that was not delivered into such control area before October 1, 2018, provided a facility that applies for certification under this clause after January 1, 2013, shall not be based on a new dam or a dam identified by the commissioner as a candidate for removal, and shall meet applicable state and federal requirements, including applicable site-specific standards for water quality and fish passage, or (xi) a biomass facility that uses sustainable biomass fuel and has an average emission rate of equal to or less than .075 pounds of nitrogen oxides per million BTU of heat input for the previous calendar quarter, except that energy derived from a biomass facility with a capacity of less than five hundred kilowatts that began construction before July 1, 2003, may be considered a Class I renewable energy source, or (B) any electrical generation, including distributed generation, generated from a Class I renewable energy source, provided, on and after January 1, 2014, any megawatt hours of electricity from a renewable energy source described under this subparagraph that are claimed or counted by a load-serving entity, province or state toward compliance with renewable portfolio standards or renewable energy policy goals in another province or state, other than the state of Connecticut, shall not be eligible for compliance with the renewable portfolio standards established pursuant to section 16-245a;

Sec. 2. Subdivision (38) of subsection (a) of section 16-1 of the 2018 supplement to the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2018*):

(38) "Class III source" means the electricity output from combined heat and power systems with an operating efficiency level of no less

than fifty per cent that are part of customer-side distributed resources developed at commercial and industrial facilities in this state on or after January 1, 2006, a waste heat recovery system installed on or after April 1, 2007, that produces electrical or thermal energy by capturing preexisting waste heat or pressure from industrial or commercial processes, **[**or**]** the electricity savings created in this state from conservation and load management programs begun on or after January 1, 2006, provided on and after January 1, 2014, no such programs supported by ratepayers, including programs overseen by the Energy Conservation Management Board or third-party programs pursuant to section 16-245m, shall be considered a Class III source, except that any demand-side management project awarded a contract pursuant to section 16-243m shall remain eligible as a Class III source for the term of such contract, or electricity derived from high technology oil-free Organic Rankine Cycle systems that produce electric power from thermal energy, provided such thermal energy is not generated by a Class I renewable energy source;

This act shall take effect as follows and shall amend the following sections:		
Section 1	*October 1, 2018*	16-1(a)(20)
Sec. 2	*October 1, 2018*	16-1(a)(38)

ET *Joint Favorable Subst.*

OFA Fiscal Note

State Impact: See Below

Municipal Impact:

Municipalities	Effect	FY 19 $	FY 20 $
Various Municipalities	Grand List Reduction	None	Potential

Explanation

The bill expands the list of renewable energy technologies considered Class I renewable energy sources to include certain systems that produce power from thermal energy and hydropower facilities.

This results in a grand list reduction to municipalities that host clean energy facilities classified under the bill as Class I. The grand list reduction would vary based on the assessed value of the property that qualifies for such exemption. A grand list reduction results in a loss of property tax revenue, given a constant mill rate.

Additionally, it is anticipated that expanding the pool of resources that are eligible as Class I resources would result in a minimal savings to the state and municipalities as ratepayers.

The Out Years

The annualized ongoing fiscal impact identified above would continue into the future subject to the mill rate, grand list, and cost of energy.

OLR Bill Analysis

sSB 331

AN ACT CONCERNING RENEWABLE ENERGY CONVERSION TECHNOLOGIES AND RUN-OF-THE-RIVER HYDROPOWER FACILITIES.

SUMMARY

This bill expands the list of renewable energy technologies considered Class I renewable energy sources to include certain (1) oil-free Organic Rankine Cycle systems that produce power from thermal energy and (2) run-of-the-river hydropower facilities that began operating on or before July 1, 2003.

By law, the state's renewable portfolio standard (RPS) requires a portion of the power provided by electric distribution companies (EDCs, i.e., Eversource and United Illuminating) and retail electric suppliers to come from Class I sources (17% in 2018). By classifying the above technologies as Class I, the bill allows the EDCs and suppliers to use the renewable energy certificates (RECs) generated by these technologies to meet their RPS Class I requirements (see BACKGROUND).

Classifying the technologies as Class I also allows them to (1) participate in certain power procurements administered by the Department of Energy and Environmental Protection (DEEP), (2) qualify for certain property tax exemptions, and (3) when applicable, be exempt from municipal building permit fees (see BACKGROUND).

EFFECTIVE DATE: October 1, 2018

ORGANIC RANKINE CYCLE SYSTEMS

The law classifies low emission advanced renewable energy conversion technologies as Class I sources. The bill specifies that these

technologies include high technology oil-free Organic Rankine Cycle systems that produce electric power from thermal energy generated by another Class I source. In general, these systems capture the waste heat from another generator (e.g., a fuel cell) and use it to run a turbine that produces electricity.

By law, Class III resources include, among other things, certain (1) combined heat and power systems and (2) waste heat recovery systems that produce electrical or thermal energy by capturing preexisting waste heat or pressure from industrial processes. The bill specifies that Class III resources include high technology oil-free Organic Rankine Cycle systems that produce electric power from thermal energy when the thermal energy is not generated by a Class I source.

SMALL HYDROPOWER

Current law classifies a run-of-the-river hydropower facility as a Class I renewable energy source if it began operating after July 1, 2003 and has a generating capacity of no more than 30 megawatts (MW). The bill extends Class I status to any portion of the capacity from a run-of-river hydropower facility that began operating on or before July 1, 2003 and (1) has a generating capacity of no more than 30 MW and (2) will deliver into the regional independent system operator's control area electric capacity that was not delivered into it before October 1, 2018 (i.e., generating capacity that was not already available to the regional electric grid).

As under existing law, a hydroelectric facility that applies for Class I certification after January 1, 2013 must (1) not be based on a new dam or a dam identified by the DEEP commissioner as a candidate for removal and (2) meet applicable state and federal requirements, including applicable site-specific standards for water quality and fish passage.

Under existing law, unchanged by the bill, Class II renewable energy sources include run-of-the-river hydropower facilities that (1)

began operating before July 1, 2003; (2) have a generating capacity of not more than five MW; and (3) do not cause an appreciable change in the river flow.

BACKGROUND

Renewable Portfolio Standard

The law requires EDCs and retail electric suppliers to obtain an increasing portion of their power (currently 17%) from Class I energy resources. They may meet this requirement by purchasing the RECs that are created when Class I facilities generate electricity (CGS § 16-245a). By law, EDCs and suppliers that fail to meet the Class I RPS must pay an alternative compliance payment of 5.5 cents per kilowatt hour (CGS §§ 16-244c and 16-245).

DEEP Procurements

The law requires the DEEP commissioner, under certain conditions, to solicit proposals from Class I renewable energy sources built on or after January 1, 2013. It also allows him, under certain conditions, to solicit proposals from (1) Class I resources built before January 1, 2013 or large-scale hydropower and (2) Class I run-of-the-river hydropower, landfill methane gas, or biomass resources. It additionally requires him to solicit proposals from operational Class I providers if he finds that a material shortage of Class I resources caused an electric company or electric supplier to fail to meet its RPS obligations (CGS §§ 16a-3f, -3g, -3h, -3i).

By law, if the commissioner finds that any of the above solicited proposals meet certain criteria, he may (or, in the case of an RPS-related shortage, must) direct the EDCs to enter into agreements with the providers to purchase energy, generating capacity, and RECs, subject to approval by the Public Utilities Regulatory Authority. (In practice, most, but not all of these procurements have occurred.)

Property Tax Exemption

The law exempts from the property tax any Class I renewable energy source installed for generation or displacement of energy if it

(1) is installed on or after January 1, 2014; (2) is for commercial or industrial purposes; and (3) has a nameplate (generating) capacity that does not exceed its location's load (demand) or, if it is a virtual net metering facility, the aggregated load of its beneficial accounts (CGS § 12-81(57)).

Municipal Building Permit Fees

By law, a municipality may, by ordinance adopted by its legislative body, exempt Class I renewable energy source projects from paying its municipally-imposed building permit fees (CGS § 29-263).

Related Bill

Among other things, sSB 9, reported favorably by Energy and Technology Committee, annually increases the Class I RPS requirement, starting in 2020 until it reaches 40% in 2030.

COMMITTEE ACTION

Energy and Technology Committee

Joint Favorable Substitute
Yea 25 Nay 0 (03/29/2018)